

## **Animas River Sampling Locations:**

Sampling Location	Location Name	Latitude	Longitude	Elevation (HAE)	Description:
CC04	CC04	37 53 38.82 N	107 38 15.42 W	11313	North Fork of Cement Creek just upstream of confluence with the 7-Level mine adit. Sample upstream of the road switchback and upstream of the 7-Level flow that comes down the hill. Site was called CCOPP02 by EPA during May, June, and July 2009 sampling events.
CC02D	Mogul Adit	37 54 36.14 N	107 38 17.26 W	11376	Mogul Mine adit. Collect sample downstream of the mine pool at the 3-inch Parshall Flume.
CC03C	Red and Bonita Adit	37 53 50.16 N	107 38 37.90 W	10893	Red and Bonita mine adit at the portal. Do not take flow measurements at this site.
CC19	American Tunnel	37 53 27.50 N	107 38 54.39 W	10540	American Tunnel mine adit. Sample where flow comes out of the ground.
CC06	Upper Gold King 7-Level Adit	37 53 40.50 N	107 38 18.09 W	11386	7-Level mine adit upstream of the confluence with the North Fork of Cement Creek. Sample where flow comes out of the mine tunnel.
CC03D	CC03D	37 53 48 46 N	107 38 41.61 W	10776	Red and Bonita mine adit. Collect sample at culvert that goes under the road.

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Negri Mne Ast 00		962599 961599 961599	061769 061609 061709	07/15/09 07/15/09 07/14/09	0019/00 0019/09 0018/09 0018/09	09-03/09 09-03/09 09-02/09 09-02/09	11/18/08	2162010	3162010 3162010 3162010	4/14/2010 4/13/2010 4/14/2010	6/32010 6/32010 6/32010 6/22010	7142010 7142010 7132010 7132010	\$152010 \$152010 \$152010 \$152010 \$152010	11.00260 11.42550 11.42550 11.02560 11.02560	2 316901	6162011 6142011 6140011	705/00/11 705/00/11 715/00/11 715/00/11	8-170011 8-170011 8-60011 8-60011	918/2011 918/2011 918/2011 918/2011	12 1922011 12 1922011 12 1922011 12 1922011

ANIMAS RIVER 2009 - 2011 DATA SUMMARY - Field Measurements

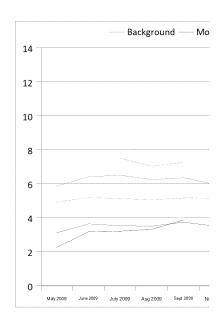
Location Name	Station ID	May 2009 Flow cfs	June 2009 Flow cfs	July 2009 Flow cfs	Aug 2009 Flow cfs	Sept 2009 Flow cfs	Nov 2009 Flow cfs	Feb 2010 Flow cfs	March 2010 Flow cfs	April 2010 Flow cfs	June 2010 Flow cfs	July 2010 Flow cfs
Background	CC01F			1.11	0.101	0.200					4.61	0.389
Mogul Mine Adit	CC02D	0.259	0.108	0.178	0.109	0.109	0.123	0.154			0.138	0.095
Red and Bonita Adit	CC03C											
American Tunnel	CC19	0.318	0.309	0.231	0.212	0.221	0.278	0.178	0.204	0.204	0.24	0.24
7-Level Adit	CC06	0.423	0.498	0.436	0.358	0.562				0.333	0.558	0.485
Red and Bonita Culvert	CC03D	0.749	0.699	0.664	0.676	0.749				0.403	0.488	0.517

•	Sept 2010 Flow cfs	Nov 2010 Flow cfs	March 2011 Flow cfs	June 2011 Flow cfs	July 2011 Flow cfs	Aug 2011 Flow cfs	Sept 2011 Flow cfs	Oct 2011 Flow cfs	May 2009 Temp °C	June 2009 Temp °C	July 2009 Temp °C	Aug 2009 Temp °C	Sept 2009 Temp °C
	0.075				3.6	0.384	0.11	0.101	·		12.70	14.20	6.19
	0.109	0.102		0.212	0.088	0.13	0.095	0.095	5.19	4.92	5.31	5.23	4.95
	0.268	0.24	0.212	0.24	0.212	0.221	0.221	0.24	7.56	7.66	7.71	7.70	7.69
	0.449	0.473		0.328	0.298	0.308	0.318	0.313	8.76	8.24	8.20	8.11	8.04
	0.541	0.46		0.724	0.676	0.7			9.17	8.28	8.15	6.08	3.89

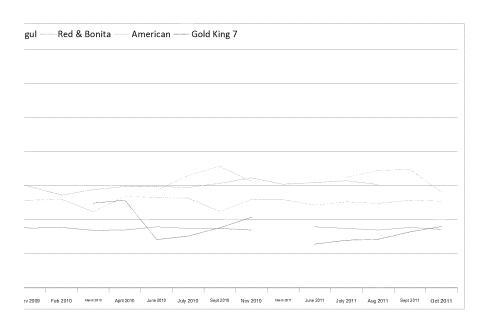
Nov 2009 Temp °C	Feb 2010 Temp °C	March 2010 Temp °C	April 2010 Temp °C	June 2010 Temp °C	July 2010 Temp °C	Sept 2010 Temp °C	Nov 2010 Temp °C	March 2011 Temp °C	June 2011 Temp °C	July 2011 Temp °C	Aug 2011 Temp °C	Sept 2011 Temp °C	Oct 2011 Temp °C
				0.31	12.45	12.3	1.1			10.51	13.58	2.8	1.62
4.86	4.76	5.13	5.08	4.38	5.33	5.3	5.1		4.99	5.42	5.3	5.26	5.11
						6.2	5.9			6.05	6.15	6.12	6.05
7.65	7.63	7.62	7.61	7.52	7.78	7.8	7.7	7.63	7.48	7.65	7.68	7.68	7.69
		7.96	7.98	8.5	8.19	8	8		8.56	8.42	8.13	8.02	7.95
2.09	3.22	6.85	9.4	6.83	16.78	14.2	6.4	8.94	8.06	9.59	8.26		

May 2009 Cond μS/cm	June 2009 Cond µS/cm	July 2009 Cond µS/cm	Aug 2009 Cond μS/cm	Sept 2009 Cond µS/cm	Nov 2009 Cond μS/cm	Feb 2010 Cond µS/cm	March 2010 Cond μS/cm	April 2010 Cond μS/cm	June 2010 Cond μS/cm	July 2010 Cond μS/cm	Sept 2010 Cond µS/cm	Nov 2010 Cond µS/cm
		257	365	327					129	282	332	276
1274	1254	1296	1344	1347	1365	1345	1327	1322	785	1315	1357	1364
											2201	1578
2338	2426	2445	2425	2409	2511	1957	2428	2450	1430	2352	2451	2386
3076	2481	2476	2381	2175			1953	1955	3084	2443	2250	2064
2074	2051	2090	2098	2114	2169	2181	2207	2288	2207	2173	2188	2164

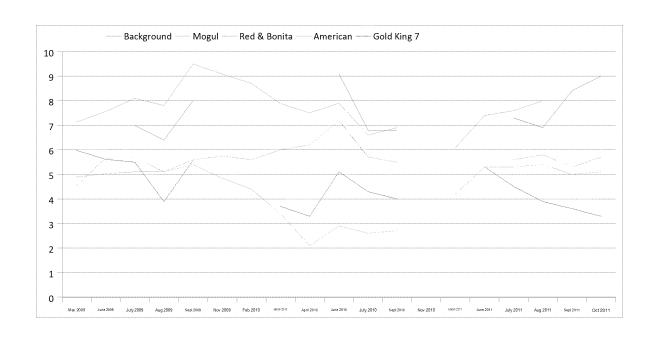
March 2011 Cond μS/cm	June 2011 Cond μS/cm	July 2011 Cond µS/cm	Aug 2011 Cond μS/cm	Sept 2011 Cond µS/cm	Oct 2011 Cond µS/cm	May 2009 pH su	June 2009 pH su	July 2009 pH su	Aug 2009 pH su	Sept 2009 pH su	Nov 2009 pH su	Feb 2010 pH su
		221	362	365	293.2			7.49	7.02	7.24		•
	1172	1255	1338	1419	1388	3.11	3.63	3.52	3.50	3.72	3.50	3.54
		2069	2083	2088	2104							
2395	2308	2389	2409	2379	2385	4.91	5.17	5.11	5.04	5.16	5.14	5.19
	3060	2835	2546	2326	2147	2.25	3.15	3.19	3.31	3.86		
2244	2026	2028	2076			5.86	6.40	6.50	6.22	6.35	5.95	5.44



March 2010 pH su	April 2010 pH su	June 2010 pH su	July 2010 pH su	Sept 2010 pH su	Nov 2010 pH su	March 2011 pH su	June 2011 pH su	July 2011 pH su	Aug 2011 pH su	Sept 2011 pH su	Oct 2011 pH su	May 2009 DO mg/l
		5.72	6.59	7.13	6.24			6.48	6.89	6.94	5.6	
3.36	3.38	3.58	3.48	3.48	3.38		3.58		3.39	3.53	3.42	4.9
				5.97	5.86			6.06	5.99	5.73	5.65	
4.46	5.38	5.29	5.26	4.47	5.17	5.18	4.86	5.04	4.95	5.13	5.08	4.6
4.96	5.13	2.82	3.03	3.52	4.13		2.55	2.79	2.84	3.27	3.59	6.0
5.76	5.94	5.94	5.89	6.14	6.46	6.07	6.17	6.28	6.05	***		7.1



June 2009 DO mg/l	July 2009 DO mg/l	Aug 2009 DO mg/l	Sept 2009 DO mg/l	Nov 2009 DO mg/l	Feb 2010 DO mg/l	March 2010 DO mg/l	April 2010 DO mg/l	June 2010 DO mg/l	July 2010 DO mg/l	Sept 2010 DO mg/l	Nov 2010 DO mg/l	March 2011 DO mg/l	June 2011 DO mg/l
	7.0	6.4	8.0					9.1	6.8	6.8			
5.0	5.1	5.1	5.6	5.7	5.6	6	6.2	7.2	5.7	5.5 6.9			
5.7	5.7	5.1	5.4	4.9	4.4	3.4	2.1	2.9	2.6	2.7		4.2	5.3
5.6	5.5	3.9	5.6			3.7	3.3	5.1	4.3	4			5.3
7.6	8.1	7.8	9.5	9.1	8.7	7.9	7.5	7.9	6.6	6.9		6.1	7.4



July 2011 DO mg/l	Aug 2011 DO mg/l	Sept 2011 DO mg/l	Oct 2011 DO mg/l
7.3	6.9	8.4	9
5.6	5.8	5.3	5.7
7	7	3.7	6.9
5.3	5.4	5	5.1
4.5	3.9	3.6	3.3
7.6	8		

#### ANIMAS RIVER 2009 - 2011 DATA SUMMARY - Acidity, TSS, TDS

Location Name	Station ID	May 2009 Acidity mg/L	June 2009 Acidity mg/L	July 2009 Acidity mg/L	Aug 2009 Acidity mg/L	Sept 2009 Acidity mg/L
Background	CC01F			<10	<10	<10
Mogul Mine Adit	CC02D		130	160	170	150
Red and Bonita Adit  American Tunnel	CC03C CC19		360	380	390	380
7-Level Adit	CC06		470	440	410	330
Red and Bonita Culvert	CC03D		200	220	233	250

Traditionally, the character of acid mine drainage is determined by its acid

Nov 2009 Acidity mg/L	Feb 2010 Acidity mg/L	March 2010 Acidity mg/L	April 2010 Acidity mg/L	June 2010 Acidity mg/L	July 2010 Acidity mg/L	Sept 2010 Acidity mg/L
				<10	<10	<10
140	130	160		140	140	160
						210
350	360	380		380	380	360
		170		1000	420	310
210	200	240		240	230	190

ity (mg/L), which is measured by titrating AMD with sodium hydroxide solution from the AMD initial pH till pH 8.3. T

Nov 2010 Acidity mg/L	March 2011 Acidity mg/L	June 2011 Acidity mg/L	July 2011 Acidity mg/L	Aug 2011 Acidity mg/L	Sept 2011 Acidity mg/L
<10			<10	<10	<10
140		120	130	150	170
220			200	200	210
340	350	330	360	320	320
250		1100	850	550	410
220	250	230	170	190	180

hen calculate the moles of NaOH that consumed by one liter of AMD, and transfer the mole number into the weigh

Oct 2011 Acidity mg/L	May 2009 TSS mg/l	June 2009 TSS mg/l	July 2009 TSS mg/l	Aug 2009 TSS mg/l	Sept 2009 TSS mg/L	Nov 2009 TSS mg/L
<10	<u>'</u>		<20	<20	<20	-216/19
150		22	26	<20	25	<20
180				·		
350		24	26	<20	<20	<20
320		29	30	<20	20	
180		33	23	27	28	23

t of CaCO3. It is the value of acidity (mg/L) of AMD. Hence, the direct meaning of acidity is: weight of CaCO3 need

Feb 2010 TSS mg/l	March 2010 TSS mg/l	April 2010 TSS mg/l	June 2010 TSS mg/l	July 2010 TSS mg/l	Sept 2010 TSS mg/L	Nov 2010 TSS mg/L
			<20	<20	<20	<20
<20	<20		<20	<20	24	<20
					<20	<20
<20	<20		<20	<20	<20	27
	<20		<20	26	23	<20
22	22		28	24	25	27

ed to neutralize the pH of 1 liter AMD. Wikipedia. http://en.wikipedia.org/wiki/Acid\_mine\_drainage.

March 2011 TSS mg/L	June 2011 TSS mg/L	July 2011 TSS mg/L	Aug 2011 TSS mg/L	Sept 2011 TSS mg/L	Oct 2011 TSS mg/L
~^~	×	<20	<20	<20	<20
	<20	<20	<20	<20	<20
		<20	<20	21	51
<20	28	31	82	<20	28
	<20	28	<20	<20	28
33	25	32	110	54	51

May 2009 TDS mg/l	June 2009 TDS mg/l	July 2009 TDS mg/l	Aug 2009 TDS mg/l	Sept 2009 TDS mg/L	Nov 2009 TDS mg/L	Feb 2010 TDS mg/l	March 2010 TDS mg/l
		44	250	220	MANAAV.	A A A A A A A A A A A A A A A A A A A	
	1100	1100	1200	1200	1100	1100	1100
	2600	2900	2400	2600	2400	2300	2300
	2300	2200	2300	2100			1700

April 2010 TDS mg/l	June 2010 TDS mg/l	July 2010 TDS mg/l	Sept 2010 TDS mg/L	Nov 2010 TDS mg/L	March 2011 TDS mg/L	June 2011 TDS mg/L
	85	190	200	180		
	85 1000	190 1300	200 1100	180 1000		960
						960
			1100	1000	2500	960 2500
	1000	1300	1100 2000	1000 2000	2500	

July 2011 TDS mg/L	Aug 2011 TDS mg/L	Sept 2011 TDS mg/L	Oct 2011 TDS mg/L
150	270	240	190
1100	1200	1100	1200
2100	2100	2200	2200
2500	2100	2500	2600
2900	2500	2300	2200
2000	2100	2100	2200

#### ANIMAS RIVER 2009 - 2011 DATA SUMMARY - Anions, TOC, DOC

Location Name	Sampling Station	May 2009 F mg/L	June 2009 F mg/L	July 2009 F mg/L	Aug 2009 F mg/L
Background	CC01F			0.28	<0.20
Mogul Mine Adit	CC02D	4.13	4.21	4.82	2.23
Red and Bonita Adit	CC03C				
American Tunnel	CC19	2.35	2.78	3.37	3.41
7-Level Adit Red and Bonita Culvert	CC06 CC03D	5.73 6.73	6.78 5.6	6.18 0.45	6.66 6.03

Sept 2009 F mg/L	Nov 2009 F mg/L	Feb 2010 F mg/L	March 2010 F mg/L	April 2010 F mg/L	June 2010 F mg/L	July 2010 F mg/L	Sept 2010 F mg/L
<0.20					<0.20	<0.20	0.24
4.34	4.6	4.16	4.06	3.91	3.98	4.73	4.62
							2.54
3.32	2.84	3.52	3.39	3.64	2.66	3.78	3.02
7.2		6.97	7.55	6.11	3.41	5.78	5.92
6.69	6.67	<0.20	6.73	15.4	6.88	7.62	6.61

Nov 2010 F mg/L	March 2011 F mg/L	June 2011 F mg/L	July 2011 F mg/L	Aug 2011 F mg/L	Sept 2011 F mg/L	Oct 2011 F mg/L
0.35	272 24 24 24 24 24 24 24 24 24 24 24 24 24		0.2	0.2	0.2	0.2
4.81		3.9	4.5	4.8	4.5	4.7
6.73			6.4	6.4	6.2	6.4
3.35	3	3.2	3.2	3.2	3	3.1
7.12		4.6	5.9	4.3	5.7	7.5
6.8	6.1	6.8	6	6		

May 2009	June 2009	July 2009	Aug 2009	Sept 2009	Nov 2009	Feb 2010	March 2010
CI	CI	Cl	CI	CI	CI	CI	Cl
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
<1.0	<2.0	<0.5 <1.0	<0.5 <0.5	<0.5 <1.0	<1.0	<1.0	<1.0
<1.0	<2.5	0.5	0.5	0.5	<0.5	<0.5	<1.0
<1.0	<2.5	<1.0	<1.0	<1.0		<0.5	<0.5

April 2010 Cl mg/L	June 2010 CI mg/L	July 2010 CI mg/L	Sept 2010 CI mg/L	Nov 2010 CI mg/L	March 2011 CI mg/L	June 2011 CI mg/L	July 2011 CI mg/L
	<0.5	<0.5	<0.1	<0.1			<0.5
<1.0	<1.0	<1.0	<0.2	<0.2		<1.0	<1.0
			<0.1	<0.1		***************************************	<0.5
<0.5	<0.5	<0.5	<0.2	<0.1	<0.5	<0.5	<0.5
<0.5	<1.0	<1.0	<0.2	<0.2		<1.0	<1.0

Aug 2011 CI mg/L	Sept 2011 CI mg/L	Oct 2011 CI mg/L	May 2009 SO4 mg/L	June 2009 SO4 mg/L	July 2009 SO4 mg/L	Aug 2009 SO4 mg/L
<0.5	<0.5	<0.5			100	155
<1.0	<1.0	<1.0	588	634	710	741
<0.5	<0.5	<0.5				
<0.5	<0.5	<0.5	1590	1470	1760	1790
<1.0	<1.0	<1.0	2020	1330	1590	1600

Sept 2009 SO4 mg/L	Nov 2009 SO4 mg/L	Feb 2010 SO4 mg/L	March 2010 SO4 mg/L	April 2010 SO4 mg/L	June 2010 SO4 mg/L	July 2010 SO4 mg/L	Sept 2010 SO4 mg/L
133					45	105	125
703	758	721	642	713	609	677	687
						99810080T889	655
1670	1390	1680	1530	1780	1980	1800	1530
1410		1250	1260	1750	2070	1440	1290

Nov 2010 SO4 mg/L	March 2011 SO4 mg/L	June 2011 SO4 mg/L	July 2011 SO4 mg/L	Aug 2011 SO4 mg/L	Sept 2011 SO4 mg/L	Oct 2011 SO4 mg/L
110			75.7	138	136	116
744		607	616	661	657	729
1420			1280	1290	1260	1360
1690	1460	1090	902	1600	1530	1630
1660		2110	3160	1540	1360	1370

May 2009 TOC mg/L	June 2009 TOC mg/L	July 2009 TOC mg/L	Aug 2009 TOC mg/L	Sept 2009 TOC mg/L	Nov 2009 TOC mg/L	Feb 2010 TOC mg/L * No TOC re	March 2010 TOC mg/L sults found for 2	2010 d
<0.50	<0.50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50				
<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50				

April 2010 TOC mg/L ata	June 2010 TOC mg/L	July 2010 TOC mg/L	Sept 2010 TOC mg/L	Nov 2010 TOC mg/L	May 2009 DOC mg/L	June 2009 DOC mg/L
					<0.50	<0.50
					<0.50 0.56	<0.50 <0.50

July 2009 DOC mg/L	Aug 2009 DOC mg/L	Sept 2009 DOC mg/L	Nov 2009 DOC mg/L	Feb 2010 DOC mg/L * No DOC re	March 2010 DOC mg/L sults found for	DOC mg/L	June 2010 DOC mg/L
<0.50	<0.50	0.68					
<0.50	<0.50	<0.50					
<0.50	<0.50	<0.50					

July 2010	Sept 2010	Nov 2010
DOC	DOC	DOC
mg/L	mg/L	mg/L

#### ANIMAS RIVER 2009 - 2011 DATA SUMMARY - Cations, Hardness

Location Name	Station ID	May 2009 Ca-d ug/L	June 2009 Ca-d µg/L	July 2009 Ca-d µg/L	Aug 2009 Ca-d μg/L	Sept 2009 Ca-d µg/L
Background Mogul Mine Adit Red and Bonita Adit	CC01F CC02D CC03C	183000	171000	41100 191000	61600 207000	54400 216000
American Tunnel 7-Level Adit Red and Bonita Culvert	CC19 CC06 CC03D	455000 368000 395000	429000 382000 382000	456000 398000 405000	451000 392000 408000	447000 394000 415000

Nov 2009 Ca-d μg/L	Feb 2010 Ca-d ug/L	March 2010 Ca-d μg/L	April 2010 Ca-d µg/L	June 2010 Ca-d µg/L	July 2010 Ca-d µg/L	Sept 2010 Ca-d µg/L	Nov 2010 Ca-d µg/L
				18100	46700	58300	48600
207000	223000	201000	210000	168000	197000	227000	229000
						445000	436000
400000	472000	464000	484000	407000	457000	470000	464000
	390000	404000	414000	344000	403000	403000	410000
425000	457000	411000	430000	398000	422000	453000	443000

March 2011 Ca-d μg/L	June 2011 Ca-d µg/L	July 2011 Ca-d μg/L	Aug 2011 Ca-d μg/L	Sept 2011 Ca-d µg/L	Oct 2011 Ca-d µg/L	May 2009 Mg-d ug/L
		35100	61800	60100	49300	
	178000	192000	202000	208000	212000	11500
		403000	398000	399000	401000	
432000	423000	438000	436000	424000	427000	31000
	351000	366000	359000	365000	361000	37000
432000	386000	391000	391000			

June 2009	July 2009	Aug 2009	Sept 2009	Nov 2009	Feb 2010	March 2010	April 2010
Mg-d	Mg-d	Mg-d	Mg-d	Mg-d	Mg-d	Mg-d	Mg-d
μg/L	µg/L	µg/L	µg/L	μg/L	ug/L	μg/L	µg/L
10600	3550 12200	4940 13000	4460 13300	13200	13900	12700	13000
30200	31300	31100	31000	27900	31900	31100	32400
26100	27000	25800	23900		19200	19800	19500

June 2010 Mg-d µg/L	July 2010 Mg-d µg/L	Sept 2010 Mg-d µg/L	Nov 2010 Mg-d µg/L	March 2011 Mg-d µg/L	June 2011 Mg-d µg/L	July 2011 Mg-d µg/L	Aug 2011 Mg-d µg/L
1740	3830	4740	4060			3480	5280
10200	12300	13900	14500		11600	12000	13100
		28200	27000			24900	25700
26500	32700	33000	30300	29600	29700	30500	31000
33800	26500	24900	22200		36300	33600	29000

Sept 2011 Mg-d µg/L	Oct 2011 Mg-d µg/L	May 2009 Hardness mg/L	June 2009 Hardness mg/L	July 2009 Hardness mg/L	Aug 2009 Hardness mg/L	Sept 2009 Hardness mg/L	
5020	4220	<u>'</u>		117.2	174.1	154.2	
12600	12900	504.3	470.6	527.1	570.4	594.1	
24100	25100						
28400	28900	1263.7	1195.5	1267.5	1254.2	1243.8	
24600	22700	1071.2	1061.3	1104.9	1085.0	1082.2	

Nov 2009	Feb 2010	March 2010	April 2010	June 2010	July 2010	Sept 2010	Nov 2010
Hardness	Hardness	Hardness	Hardness	Hardness	Hardness	Hardness	Hardness
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
571.2	614.0	554.2	577.9	52.4 461.5	132.4 542.5	165.1 624.0	138.1 631.5
1113.6	1309.9	1286.6	1341.9	1125.4	1275.7	1309.4	1283.3
	1052.9	1090.3	1114.0	998.1	1115.4	1108.8	1115.1

March 2011 Hardness mg/L	June 2011 Hardness mg/L	July 2011 Hardness mg/L	Aug 2011 Hardness mg/L	Sept 2011 Hardness mg/L	Oct 2011 Hardness mg/L	Avg Hard mg/L	
		102.0	176.0	170.7	140.5	135	
	492.2	528.8	558.3	571.2	582.5	551	
		1108.8	1099.6	1095.5	1104.6	1104	
1200.5	1178.5	1219.2	1216.3	1175.6	1185.2	1240	
	1025.9	1052.2	1015.8	1012.7	994.9	1083	

May 2009	June 2009	July 2009	Aug 2009	Sept 2009	Nov 2009	Feb 2010	March 2010
K-d	K-d	K-d	K-d	K-d	K-d	K-d	K-d
ug/L	µg/L	µg/L	μg/L	µg/L	μg/L	ug/L	μg/L
2130	2140	<1000 2330	<1000 2320	<1000 2320	2300	2150	2130
1840	2020	1920	1910	1850	1650	1670	1930
1640	1750	1890	2200	2020		1790	1760

April 2010 K-d µg/L	June 2010 K-d µg/L	July 2010 K-d µg/L	Sept 2010 K-d µg/L	Nov 2010 K-d µg/L	March 2011 K-d µg/L	June 2011 K-d µg/L	July 2011 K-d µg/L
	<1000	<1000	<170	<170			<1000
2110	1840	2200	2560	2340		2160	2290
			1860	1740			1740
1830	1720	1930	1950	1770	1950	1790	1790
1690	1590	1710	2160	1760		1570	1500

Aug 2011 K-d µg/L	Sept 2011 K-d µg/L	Oct 2011 K-d µg/L	May 2009 Na-d ug/L	June 2009 Na-d µg/L	July 2009 Na-d µg/L	Aug 2009 Na-d μg/L
<1000	<1000	<1000	·	•	1100	1420
2330	2460	2260	6070	5970	6380	6130
1750	1810	1740				
1770	1790	1650	10100	10400	10200	9920
2130	2010	1840	5130	5650	6050	5420

Sept 2009 Na-d µg/L	Nov 2009 Na-d µg/L	Feb 2010 Na-d ug/L	March 2010 Na-d μg/L	April 2010 Na-d µg/L	June 2010 Na-d µg/L	July 2010 Na-d µg/L	Sept 2010 Na-d µg/L
1350					830	1140	1400
6660	7120	6830	6680	6430	5430	6050	6760
							9140
10200	9490	9980	10600	10400	9290		10500
5820		5850	6090	6140	4740	5370	5730

Nov 2010 Na-d μg/L	Na-d Na-d		July 2011 Na-d µg/L	Aug 2011 Na-d µg/L	Sept 2011 Na-d µg/L	Oct 2011 Na-d µg/L	
1330			848	1400	1380	1280	
6660		5920	5870	6230	6490	6540	
8790			8490	8660	8720	8780	
9630	10100	9820	9440	9930	9930	9840	
5530		4910	4760	5440	5640	5460	

### ANIMAS RIVER 2009 - 2011 DATA SUMMARY - Aluminum

Location Name	Station ID	May 2009 Al-t µg/L	June 2009 Al-t µg/L	July 2009 Al-t µg/L	Aug 2009 Al-t µg/L	Sept 2009 AI-t µg/L	Nov 2009 Al-t µg/L	Feb 2010 Al-t µg/L	March 2010 Al-t μg/L	April 2010 Al-t µg/L	June 2010 Al-t µg/L	July 2010 Al-t µg/L	Sept 2010 Al-t µg/L
Background	CC01F	•		204	226	243					248	154	261
Mogul Mine Adit Red and Bonita Adit	CC02D CC03C	2880	3360	3610	3530	3250	3130	2910	2720	2420	2520	3250	3440 3310
American Tunnel	CC19	5680	5520	5510	5380	5510	5470	5480	4960	5100	5070	5310	4970
7-Level Adit	CC06	58300	32900	31800	28500	21500		8310	8240	7840	61600	30200	24200
Red and Bonita Culvert CC above Southfork	CC03D CC18	4030	3040	3380	3500	3520	3780	4410	3960	3820	3890	4050	3920
Background	CC01F												
Mogul Mine Adit Red and Bonita Adit	CC02D CC03C												
American Tunnel	CC19												
7-Level Adit	CC06												
Red and Bonita Culvert	CC03D												
CC above Southfork	CC18												

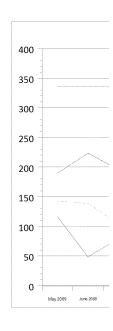
Nov 2010 Al-t µg/L	March 2011 Al-t µg/L	June 2011 Al-t µg/L	July 2011 Al-t µg/L	Aug 2011 Al-t µg/L	Sept 2011 Al-t µg/L	Oct 2011 Al-t µg/L	May 2009 AI-d ug/L	June 2009 Al-d µg/L	July 2009 Al-d µg/L	Aug 2009 Al-d µg/L	Sept 2009 Al-d µg/L	Nov 2009 Al-d µg/L	Feb 2010 Al-d ug/L
294			166	179	151	224			180	204	181		
3180		2600	3420	3530	3490	3330	2850	3150	3630	3580	3320	3140	2910
3130			4170	3290	4040	4010							
5360	4840	5160	5180	4850	4750	4690	5360	5530	5250	5240	5280	4830	5180
18600		57400	53500	36700	28700	21000	59000	33400	31900	28600	21600		7670
3990	3790	4130	3750	3360			3320	1840	2000	2640	2440	3270	3920

March 2010 Al-d µg/L	April 2010 Al-d µg/L	June 2010 Al-d µg/L	July 2010 Al-d µg/L	Sept 2010 Al-d µg/L	Nov 2010 Al-d µg/L	March 2011 Al-d µg/L	June 2011 Al-d µg/L	July 2011 Al-d µg/L	Aug 2011 Al-d µg/L	Sept 2011 Al-d μg/L	Oct 2011 Al-d µg/L	May 2009 Flow cfs
		<100	137	151	<25.0			<100	116	<100	<100	
2610	2510	2390	3110	3700	3230		2610	3400	3690	3480	3340	0.259
				3470	3060			4080	3480	3840	4050	
4810	4710	4200	5310	4930	4660	4870	4810	4900	4870	4680	4660	0.318
8040	7220	57700	30200	25700	17300		60000	52200	39200	28300	21700	0.423
2690	2280	2770	4050	2970	2000	2440	2890	2240	2450			0.749 48.8

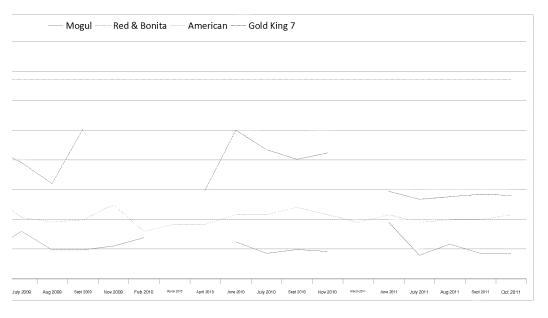
### Flow in Gallons per Minu

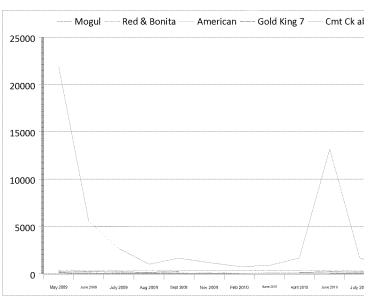
116.05968

142.7184 189.79752 336.06144 21897.65325

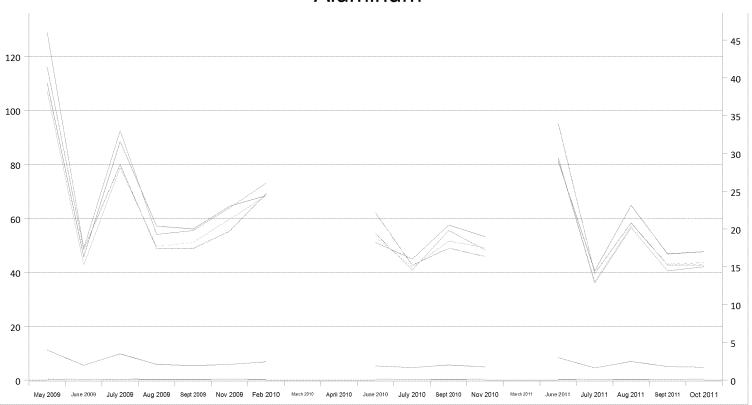


June 2009 Flow cfs	July 2009 Flow cfs	Aug 2009 Flow cfs	Sept 2009 Flow cfs	Nov 2009 Flow cfs	Feb 2010 Flow cfs	March 2010 Flow cfs	April 2010 Flow cfs	June 2010 Flow cfs	July 2010 Flow cfs	Sept 2010 Flow cfs	Nov 2010 Flow cfs	March 2011 Flow cfs	June 2011 Flow cfs	July 2011 Flow cfs
0.108	1.11 0.178	0.101 0.109	0.200 0.109	0.123	0.154			4.61 0.138	0.389 0.095	0.075 0.109	0.102		0.212	3.6 0.088
0.309 0.498	0.231 0.436	0.212 0.358	0.221 0.562	0.278	0.178	0.204	0.204 0.333	0.24 0.558	0.24 0.485	0.268 0.449	0.24 0.473	0.212	0.24 0.328	0.212 0.298
0.749 12.3	0.749 5.94	0.749 2.29	0.749 3.66	0.749 2.67	0.749 1.77	0.749 1.99	0.749 3.76	0.749 29.4	0.749 3.59	0.749 2.31	0.749 2.42	0.749 1.63	0.749 46.2	0.749 14.3
48.4704	496.3728 79.84152	45.18159 48.73968	89.70973 48.73968	55.15752	69.1152			2068.968 61.9344	174.5832 42.636	33.66 48.9192	45.7776	<b>;</b>	95.1456	1615.68 39.4944
138.6792 223.5024 336.06144 5520.24	195.48606	95.32512 160.51332 336.06144 1027.50516	252.41948 336.06144	124.72152 336.06144 1199.57508	79.8864 336.06144 794.376	336.06144	91.5552 149.4504 336.06144 1687.488	250.4304	107.712 217.668 336.06144 1611.192	120.2784 201.5112 336.06144 1036.728	107.712 212.2824 336.06144 1086.096	336.06144	107.712 147.2064 336.06144 20734.56	95.1456 133.7424 336.06144 6417.84

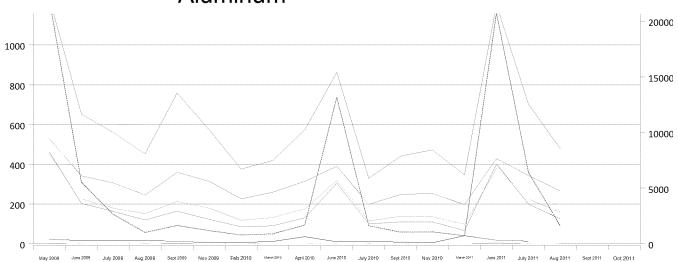




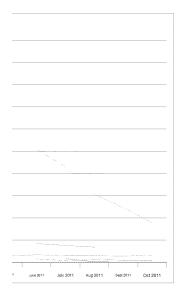




			Formula	a= ug/l * cfs * 0.00	53937749362	9927							
Aug 2011	Sept 2011	Oct 2011	May 2		July 2009	Aug 2009	Sept 2009	Nov 2009	Feb 2010	March 2010	April 2010	June 2010	July 2010
Flow	Flow	Flow	Al Lo		Al Load	Al Load	Al Load	Al Load	Al Load	Al Load	Al Load	Al Load	Al Load
cfs	cfs	cfs	Lbs/c	lay Lbs/day	Lbs/day	Lbs/day	Lbs/day	Lbs/day	Lbs/day	Lbs/day	Lbs/day	Lbs/day	Lbs/day
0.384	0.11	0.101	·		1.22	0.123	0.262					6.2	0.3
0.13	0.095	0.095	4.0	2 1.96	3.46	2.07	1.90	2.07	2.4			1.9	1.7
0.221	0.221	0.24	9.7	4 9.20	6.85	6.16	6.58	8.20	5.3	5.5	5.6	6.6	6.9
0.308	0.318	0.313	133		74.7	55.0	65.2				14.1	185.4	79.0
0.749 3.52	0.749	0.749	16. 460		13.7 163.5	14.1 119.0	14.2 164.7	123.7	86.0	90.5	15.4 131.0	15.7 <b>304</b> .5	16.4 100.5
172.3392 58.344	49.368 42.636	45.3288 42.636											
99.1848	99.1848	107.712											
138.2304	142.7184	140.4744				Г							
336.06144 1579.776	336.06144	336.06144					200	Backgrour	nd Mogul	Red & Bon	ita — Ameri	can Gold K	ing 7
							180					Å	
ve Southfork							160					\	
							140						
							120						
							100	N. Carlotte				\	
							80					<u> </u>	
							60		The second secon			•	
							40						
							20	·					
							0					The state of the s	
								June 2009 July 2009 A	ug 2009 Sept 2009	Nov 2009 Feb 2010 Man	x 2010 April 2016 June	2010 July 2010 Sept	1916 Nov 2010
(1000) Impari													
			0.00										
Sept 2010 Nov 201	10 March 2011 June 2011	July 2011 Aug 2011 Sept		Zinc —— Cadmium –	Aluminum	Copper	Iron Lea	d Mangan	ese Nicke	l Flow GPN	1		
			1400										250



Sept 2010 Al Load Lbs/day	Nov 2010 Al Load Lbs/day	March 2011 Al Load Lbs/day	June 2011 Al Load Lbs/day	July 2011 Al Load Lbs/day	Aug 2011 Al Load Lbs/day	Sept 2011 Al Load Lbs/day	Oct 2011 Al Load Lbs/day
0.1 2.0	1.7		3.0	3.2 1.6	0.4 2.5	0.1 1.8	0.1 1.7
7.2 58.6 15.8 110.8	6.9 47.5 16.1 110.4	5.5 66.6	6.7 101.5 16.7 401.2	5.9 86.0 15.1 200.5	5.8 61.0 13.6 124.5	5.7 49.2	6.1 35.5



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1800744

### Aluminum

#### ANIMAS RIVER 2009 - 2011 DATA SUMMARY - Cadmium

Location Name	Station ID	May 2009 Cd-t μg/L	June 2009 Cd-t µg/L	July 2009 Cd-t µg/L	Aug 2009 Cd-t µg/L	Sept 2009 Cd-t µg/L	Nov 2009 Cd-t µg/L	Feb 2010 Cd-t µg/L	March 2010 Cd-t µg/L	April 2010 Cd-t µg/L	June 2010 Cd-t µg/L	July 2010 Cd-t µg/L
Background	CC01F			1	1.2	1.5		,			2.1	1
Mogul Mine Adit Red and Bonita Adit	CC02D CC03C	41.3	57.2	62.1	60.8	58.4	50.1	43.2	40.8	41.4	40.3	54.3
American Tunnel	CC19	2.6	2.5	2.5	2.5	2.5	2.3	2.3	2.3	2.4	2.3	2.1
7-Level Adit	CC06	111	59.9	61.4	66.2	64.4		38.3	37.7	41.4	136	61.5
Red and Bonita Culvert	CC03D CC18	33.3	34.8	34.9	34.6	35.9	37.7	37.5	37.6	37.3	40.4	35.5

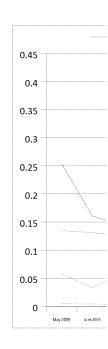
Sept 2010 Cd-t µg/L	Nov 2010 Cd-t µg/L	March 2011 Cd-t µg/L	June 2011 Cd-t µg/L	July 2011 Cd-t µg/L	Aug 2011 Cd-t µg/L	Sept 2011 Cd-t µg/L	Oct 2011 Cd-t µg/L	May 20 Cd-c ug/L	Cd-d	July 2009 Cd-d μg/L	Aug 2009 Cd-d μg/L	Sept 2009 Cd-d µg/L
1.6	3.1	<u> </u>		1.2	1.1	1.1	2.6	<u> </u>		0.9	1.2	1.6
57.6	54		36.8	50.1	60.4	58.4	54.1	40.6	51.8	63	61.8	58.5
31.3	32.3			32.7	28	32.9	50.6					
2.1	2.3	2	2.3	2.2	2.2	2.1	2.1	2.6	2.5	2.4	2.3	2.4
57.5	52.9		136	61.1	69.3	55.7	58.7	110	71.6	60.8	66.6	62.7
35.5	38	33	31.8	30	29			33.1	34.4	34.5	34.5	37.5

Nov 2009 Cd-d µg/L	Feb 2010 Cd-d ug/L	March 2010 Cd-d μg/L	April 2010 Cd-d µg/L	June 2010 Cd-d µg/L	July 2010 Cd-d µg/L	Sept 2010 Cd-d µg/L	Nov 2010 Cd-d µg/L	March 2011 Cd-d μg/L	June 2011 Cd-d µg/L	July 2011 Cd-d µg/L	Aug 2011 Cd-d μg/L	Sept 2011 Cd-d µg/L	Oct 2011 Cd-d µg/L
				1.9	1	1.7	3.2			1.1	1.1	1.1	2.7
52.5	43.5	39.3	41	38.9	56.3	55.7	54.2		37.5	51.7	63.6	60.3	51.4
						30.2	32.3			32.8	28.2	33.9	50.3
2.4	2.2	2.3	2.5	2.2	2.2	2	2.5	1.9	2.2	2	2.2	2.1	2
	35.9	36.1	41	133	63.2	56.9	53.3		138	62.2	72.2	60.3	58.8
37.3	38.1	36.5	40.9	39.3	37.2	34.1	38	34	33.2	28.6	29.6		ŕ

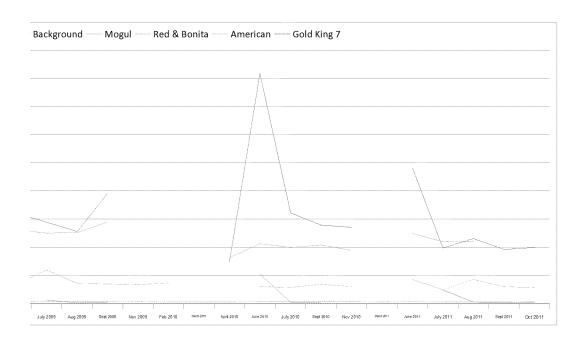
May 2009 Flow cfs	June 2009 Flow cfs	July 2009 Flow cfs	Aug 2009 Flow cfs	Sept 2009 Flow cfs	Nov 2009 Flow cfs	Feb 2010 Flow cfs	March 2010 Flow cfs	April 2010 Flow cfs	June 2010 Flow cfs	July 2010 Flow cfs	Sept 2010 Flow cfs	Nov 2010 Flow cfs
		1.11	0.101	0.200					4.61	0.389	0.075	
0.259	0.108	0.178	0.109	0.109	0.123	0.154			0.138	0.095	0.109	0.102
0.318 0.423	0.309 0.498	0.231 0.436	0.212 0.358	0.221 0.562	0.278	0.178	0.204	0.204 0.333	0.24 0.558	0.24 0.485	0.268 0.449	0.24 0.473
0.749	0.699	0.664	0.676	0.749				0.403	0.488	0.517	0.541	0.46

Values are formulas!

						Formula= ug/	* cfs * 0.005	39377493629	9927			Formula= ug/l * cfs * 0
larch 2011 Flow cfs	June 2011 Flow cfs	July 2011 Flow cfs	Aug 2011 Flow cfs	Sept 2011 Flow cfs	Oct 2011 Flow cfs	May 2009 Cd Load Lbs/day	June 2009 Cd Load Lbs/day	July 2009 Cd Load Lbs/day	Aug 2009 Cd Load Lbs/day	Sept 2009 Cd Load Lbs/day	Nov 2009 Cd Load Lbs/day	Feb 2010 Cd Load Lbs/day
	0.040	3.6		f	0.101			0.01	0.001	0.002		
	0.212	0.088	0.13	0.095	0.095	0.06	0.03	0.06	0.04	0.03	0.03	0.0
0.212	0.24	0.212	0.221	0.221	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	0.328	0.298	0.308	0.318	0.313	0.3	0.2	0.1	0.1	0.2		
	0.724	0.676	0.7			0.1	0.1	0.1	0.1	0.1		
						1.42	0.69	0.51	0.37	0.54	0.39	0.27



53937749362	9927	•									
March 2010	*	June 2010	July 2010	Sept 2010	Nov 2010	March 2011	June 2011	July 2011	Aug 2011	Sept 2011	Oct 2011
Cd Load	Cd Load	Cd Load	Cd Load	Cd Load	Cd Load	Cd Load	Cd Load	Cd Load	Cd Load	Cd Load	Cd Load
Lbs/day	Lbs/day	Lbs/day	Lbs/day	Lbs/day	Lbs/day	Lbs/day	Lbs/day	Lbs/day	Lbs/day	Lbs/day	Lbs/day
		0.1	0.002	0.001				0.02	0.002	0.00	0.001
		0.03	0.03	0.03	0.03		0.04	0.02	0.04	0.03	0.03
0.0	0.003	0.003	0.003	0.003	0.003	0.002	0.003	0.003	0.003	0.003	0.003
	0.1	0.4	0.2	0.1	0.1		0.241	0.098	0.115	0.096	0.099
	0.1	0.1	0.1	0.1	0.1		0.1	0.1	0.1		
0.30	0.41	1.08	0.32	0.33	0.35	0.22	1.27	0.62	0.39		



#### ANIMAS RIVER 2009 - 2011 DATA SUMMARY - Copper

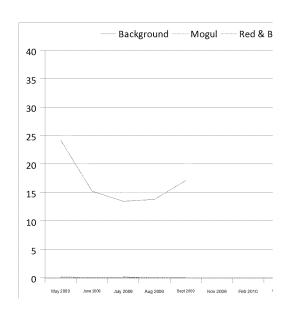
Location Name	Station ID	May 2009 Cu-t µg/L	June 2009 Cu-t µg/L	July 2009 Cu-t µg/L	Aug 2009 Cu-t µg/L	Sept 2009 Cu-t µg/L	Nov 2009 Cu-t µg/L	Feb 2010 Cu-t µg/L	March 2010 Cu-t µg/L	April 2010 Cu-t µg/L	June 2010 Cu-t µg/L	July 2010 Cu-t µg/L
Background	CC01F		•	25.4	25.6	28.3					44.2	24.4
Mogul Mine Adit Red and Bonita Adit	CC02D CC03C	33.9	50.4	45.5	31.4	30.9	21.6	16.9	17.9	19.7	22.6	31.6
American Tunnel	CC19	7.9	7	6.2	6.3	6.6	6.5	5.9	8.9	6.6	<10.0	<10.0
7-Level Adit	CC06	10600	5680	5710	7150	5630		2430	2410	4060	12300	5360
Red and Bonita Culvert	CC03D CC18	50.6	4.5	6.2	6.9	4.1	8.6	47.1	14.2	18	14.3	<10.0

Sept 2010 Cu-t µg/L	Nov 2010 Cu-t µg/L	March 2011 Cu-t μg/L	June 2011 Cu-t µg/L	July 2011 Cu-t µg/L	Aug 2011 Cu-t µg/L	Sept 2011 Cu-t µg/L	Oct 2011 Cu-t µg/L	May 2009 Cu-d ug/L	June 2009 Cu-d µg/L	July 2009 Cu-d µg/L	Aug 2009 Cu-d µg/L	Sept 2009 Cu-d µg/L
34.4	46.4			26.1	23.5	20.4	36.5			19.7	20.4	18
23.8	14.7		24.6	35.2	29.9	29.5	<20.0	32.5	54.2	44.1	31.7	29.1
<4.0	<4.0			<20.0	<20.0	<20.0	29.6					
<4.0	<4.0	<10.0	<10.0	<20.0	<20.0	<20.0	<20.0	7.3	6.4	6.1	6	6.6
5480	4020		12400	9930	8330	6420	5220	10100	5520	5520	7310	5440
17.8	11.3	16.7	38.2	<20.0	<20.0			41.1	<3.0	3.5	4.5	<3.0

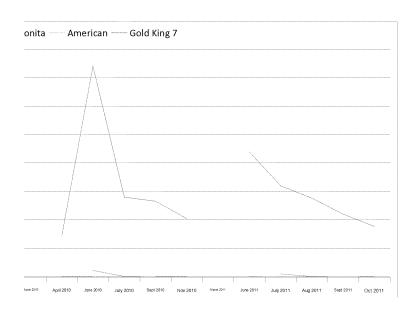
Nov 2009 Cu-d µg/L	Feb 2010 Cu-d ug/L	March 2010 Cu-d µg/L	April 2010 Cu-d µg/L	June 2010 Cu-d µg/L	July 2010 Cu-d µg/L	Sept 2010 Cu-d µg/L	Nov 2010 Cu-d µg/L	March 2011 Cu-d µg/L	June 2011 Cu-d µg/L	July Cu µg	-d Či	2011 I-d J/L	Sept 2011 Cu-d µg/L	Oct 2011 Cu-d µg/L
				27.2	17.1	19.8	26.8			<20.0	<20.0		<20.0	22.9
24	16.2	18.3	19.9	22.3	32.2	22.1	14.5		24.	3	33.3	30.8	30.4	<20.0
						<4.0	<4.0			<20.0	<20.0		<20.0	29.9
5.4	5.7	8.3	6.2	<10.0	<10.0	<4.0	<4.0	<10.0	<10.0	<20.0	<20.0		<20.0	<20.0
	2450	2620	2690	12100	4970	5540	3900		1190	0	9490	8370	6350	4950
8.9	41.8	11.2	13.8	11.4	<10.0	13.6	<4.0	11.5	30.	3<20.0	<20.0			

May 200 Flow cfs	June 2009 Flow cfs	July 2009 Flow cfs	Aug 2009 Flow cfs	Sept 2009 Flow cfs	Nov 2009 Flow cfs	Feb 2010 Flow cfs	March 2010 Flow cfs	April 2010 Flow cfs	June 2010 Flow cfs	July 2010 Flow cfs	Sept 2010 Flow cfs	Nov 2010 Flow cfs
		1.11	0.101	0.200					4.61	0.389	0.075	
0.259	0.108	0.178	0.109	0.109	0.123	0.154			0.138	0.095	0.109	0.102
0.318	0.309	0.231	0.212	0.221	0.278	0.178	0.204	0.204	0.24	0.24	0.268	0.24
0.423	0.498	0.436	0.358	0.562				0.333	0.558	0.485	0.449	0.473
0.749	0.699	0.664	0.676	0.749				0.403	0.488	0.517	0.541	0.46

March 2011 Flow cfs	June 2011 Flow cfs	July 2011 Flow cfs	Aug 2011 Flow cfs	Sept 2011 Flow cfs	Oct 2011 Flow cfs	Formula= ug May 2009 Cu Load Lbs/day	/I * cfs * 0.005 June 2009 Cu Load Lbs/day	39377493629 July 2009 Cu Load Lbs/day	9927 Aug 2009 Cu Load Lbs/day	Sept 2009 Cu Load Lbs/day	Nov 2009 Cu Load Lbs/day	Feb 2010 Cu Load Lbs/day
	0.212	3.6 0.088			0.101 0.095	0.05	0.03	0.15 0.04	0.014 0.02	0.031 0.02	0.01	0.0
0.212	0.24	0.212	0.221	0.221	0.24	0.01	0.01	0.01	0.01	0.01	0.01	0.0
	0.328	0.298	0.308	0.318	0.313	24.2	15.3	13.4	13.8	17.1		
	0.724	0.676	0.7			0.2 22.62	0.0 16.54	0.0 17.29	0.0 17.70	0.0 12.30	7.16	6.72



March 2010 Cu Load Lbs/day	April 2010 Cu Load Lbs/day	June 2010 Cu Load Lbs/day	July 2010 Cu Load Lbs/day	Sept 2010 Cu Load Lbs/day	Nov 2010 Cu Load Lbs/day	March 2011 Cu Load Lbs/day	June 2011 Cu Load Lbs/day	July 2011 Cu Load Lbs/day	Aug 2011 Cu Load Lbs/day	Sept 2011 Cu Load Lbs/day	Oct 2011 Cu Load Lbs/day
		1.1 0.02	0.1 0.02	0.01 0.01	0.01		0.03	0.5 0.02	0.05 0.02	0.01 0.02	0.02
0.0	0.0 7.3 0.04	37.0 0.04	14.0	13.3 0.1	10.3 0.03		21.9 0.1	16.0	13.8	11.0	8.8
11.42	36.63	9.53	11.61	8.95	4.65	40.62	18.90	13.67			



86700 76700 87700 88000 96700 96100 82300 93500 97600 89400 79900 81600 96500 87400

88000 84200 78800 80500 81200 85800 85800 94100 91600 83100 85600

87100 83100 84000 86100 92700 88800 82800 76900 82300 0.749 0.699

0.7

 350.2
 289.2
 314.1
 320.8
 390.6

 1234.27
 652.82
 561.08
 453.20
 758.49
 573.79

#### ANIMAS RIVER 2009 - 2011 DATA SUMMARY - Lead

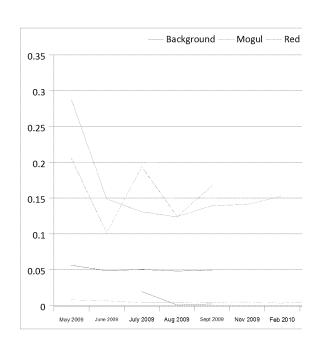
Location Name	Station ID	May 2009 Pb-t μg/L	June 2009 Pb-t μg/L	July 2009 Pb-t µg/L	Aug 2009 Pb-t μg/L	Sept 2009 Pb-t µg/L	Nov 2009 Pb-t µg/L	Feb 2010 Pb-t µg/L	March 2010 Pb-t μg/L	April 2010 Pb-t µg/L	June 2010 Pb-t μg/L	July 2010 Pb-t µg/L
Background	CC01F			3.3	1.5	1.9					11.5	2.5
Mogul Mine Adit Red and Bonita Adit	CC02D CC03C	147	174	202	212	238	213	184	189	181	168	193
American Tunnel	CC19	4.7	3.9	3.3	3.2	3.6	3.3	3.4	5.4	4.1	4.2	4
7-Level Adit	CC06	24.7	18.1	21.5	24.9	16.3		1.9	1.8	1.8	21.3	19.6
Red and Bonita Culvert	CC03D CC18	71.2	39.5	36.5	34	41.4	37.2	47.2	58.7	55.3	57.7	40

Sept 2010 Pb-t µg/L	Nov 2010 Pb-t µg/L	March 2011 Pb-t μg/L	June 2011 Pb-t µg/L	July 2011 Pb-t µg/L	Aug 2011 Pb-t µg/L	Sept 2011 Pb-t µg/L	Oct 2011 Pb-t µg/L	May 200 Pb-d ug/L	9 June 2009 Pb-d μg/L	July 2009 Pb-d μg/L	Aug 2009 Pb-d μg/L	Sept 2009 Pb-d µg/L
1.8	1.4	1		7.1	1.9	1.6	1.5			2.3	<1.0	<1.0
232	231		170	189	229	235	254	142	160	207	227	241
86	88.1			84.2	163	101	134					
3.6	3	3	3.8	3.2	2.9	2.7	2.9	2.3	1.9	2	1.8	1.9
21.8	6.9		23.6	19.1	29.1	23.2	17.1	25.3	19.7	22.6	26.1	14.6
38.4	60.7	63.2	76.8	46.2	36.7			8.1	4.1	7.6	9.1	15.4

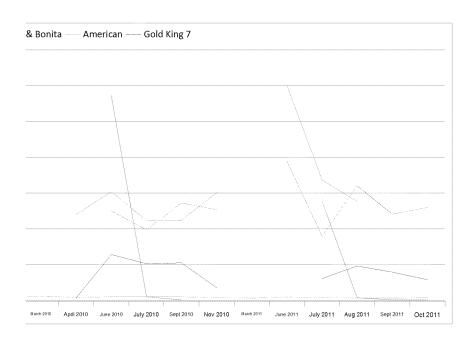
Nov 2009 Pb-d µg/L	Feb 2010 Pb-d ug/L	March 2010 Pb-d µg/L	April 2010 Pb-d µg/L	June 2010 Pb-d µg/L	July 2010 Pb-d µg/L	Sept 2010 Pb-d µg/L	Nov 2010 Pb-d µg/L	March 2011 Pb-d µg/L	June 2011 Pb-d µg/L	July 2011 Pb-d µg/L	Aug 2011 Pb-d µg/L	Sept 2011 Pb-d µg/L	Oct 2011 Pb-d µg/L
				<1.0	1.2	<0.2	<0.2			3.5	<1.0	<1.0	<1.0
219	189	182	178	153	186	219	238		174	186	228	236	242
						71.1	88.5			75.9	75.7	34.9	38.8
1.7	1.4	1.8	2	2.2	2.5	2.5	1.5	1.3	2	1.2	1.7	1.3	1.3
	1	1	<1.0	20.7	18.9	21.1	6.5		23.7	18.1	29	23.9	15
4.6	43	3.6	2.1	a	10.7	6.2	79	3.9	7.3	5.3	69		

May 2009 Flow cfs	June 2009 Flow cfs	July 2009 Flow cfs	Aug 2009 Flow cfs	Sept 2009 Flow cfs	Nov 2009 Flow cfs	Feb 2010 Flow cfs	March 2010 Flow cfs	April 2010 Flow cfs	June 2010 Flow cfs	July 2010 Flow cfs	Sept 2010 Flow cfs	Nov 2010 Flow cfs	_
		1.11	0.101	0.200					4.61	0.389	0.075		
0.259	0.108	0.178	0.109	0.109	0.123	0.154			0.138	0.095	0.109	0.102	]
0.318	0.309	0.231	0.212	0.221	0.278	0.178	0.204	0.204	0.24	0.24	0.268	0.24	
0.423	0.498	0.436	0.358	0.562				0.333	0.558	0.485	0.449	0.473	
0.749	0.699	0.664	0.676	0.749				0.403	0.488	0.517	0.541	0.46	

					<u> </u>	Formula= ug	1 * cfs * 0.005	39377493629	9927			
March 2011 Flow cfs	June 2011 Flow cfs	July 2011 Flow cfs	Aug 2011 Flow cfs	Sept 2011 Flow cfs	Oct 2011 Flow cfs	May 2009 Pb Load Lbs/day	June 2009 Pb Load Lbs/day	July 2009 Pb Load Lbs/day	Aug 2009 Pb Load Lbs/day	Sept 2009 Pb Load Lbs/day	Nov 2009 Pb Load Lbs/day	Feb 2010 Pb Load Lbs/day
	0.212	3.6 0.088	0.384 0.13	0.11 0.095	0.101 0.095	0.21	0.10	0.02 0.19	0.001 0.12	0.002 0.14	0.14	0.2
0.212	0.24	0.212	0.221	0.221	0.24	0.01	0.01	0.00	0.00	0.00	0.00	0.0
	0.328	0.298	0.308	0.318	0.313	0.1	0.0	0.1	0.0	0.0		
	0.724	0.676	0.7			0.3 2.50	0.1 0.52	0.1 0.34	0.1 0.21	0.2 2.05	0.27	0.22



March 2010 Pb Load Lbs/day	April 2010 Pb Load Lbs/day	June 2010 Pb Load Lbs/day	July 2010 Pb Load Lbs/day	Sept 2010 Pb Load Lbs/day	Nov 2010 Pb Load Lbs/day	March 2011 Pb Load Lbs/day	June 2011 Pb Load Lbs/day	July 2011 Pb Load Lbs/day	Aug 2011 Pb Load Lbs/day	Sept 2011 Pb Load Lbs/day	Oct 2011 Pb Load Lbs/day
		0.3 0.1	0.01 0.1	0.001 0.1	0.1		0.2	0.1 0.1	0.004 0.2	0.001 0.1	0.001 0.1
0.0	0.0 0.0 0.1	0.01 0.1 0.2	0.01 0.1 0.1	0.01 0.1 0.1	0.004 0.02 0.2	0.003	0.005	0.004 0.03 0.2	0.003 0.05 0.1	0.003 0.04	0.004 0.03
0.29						0.23			0.1		



#### ANIMAS RIVER 2009 - 2011 DATA SUMMARY - Manganese

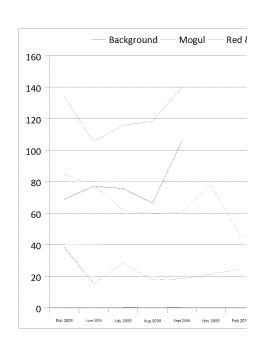
Location Name	Station ID	May 2009 Mn-t µg/L	June 2009 Mn-t µg/L	July 2009 Mn-t µg/L	Aug 2009 Mn-t μg/L	Sept 2009 Mn-t µg/L	Nov 2009 Mn-t µg/L	Feb 2010 Mn-t µg/L	March 2010 Mn-t µg/L	April 2010 Mn-t µg/L	June 2010 Mn-t µg/L	July 2010 Mn-t µg/L
Background	CC01F			48	36.1	66					157	42
Mogul Mine Adit Red and Bonita Adit	CC02D CC03C	27400	26200	29300	30200	31100	32100	29400	30800	29200	25400	29200
American Tunnel	CC19	49400	46600	49800	52000	50700	52000	46400	48300	50400	47800	47800
7-Level Adit	CC06	30200	28700	32200	34400	34900		28000	28400	26700	29500	29500
Red and Bonita Culvert	CC03D CC18	33200	27900	32300	32500	34600	35700	34100	35100	36300	33200	31500

Sept 2010 Mn-t µg/L	Nov 2010 Mn-t μg/L	March 2011 Mn-t µg/L	June 2011 Mn-t µg/L	July 2011 Mn-t µg/L	Aug 2011 Mn-t μg/L	Sept 2011 Mn-t µg/L	Oct 2011 Mn-t µg/L	May 2009 Mn-d ug/L	June 2009 Mn-d µg/L	July 2009 Mn-d µg/L	Aug 2009 Mn-d µg/L	Sept 2009 Mn-d µg/L
72.1	132			75.8	45.4	50	121			47.0	35.6	66.1
31300	31800		25800	27500	29100	30100	30300	26700	24200	28200	30300	31600
35900	33800			31100	29800	31200	32300					
47400	50400	48800	48400	49500	47000	46900	49000	48900	47200	49200	48800	49200
29300	31000		27000	29500	31600	34400	33500	30200	27700	31800	34200	33900
32700	35300	32900	31800	31400	29900			32300	30800	32100	32700	33700

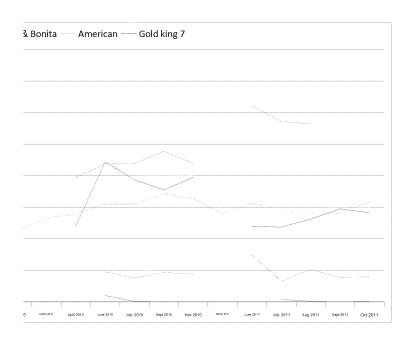
Nov 2009 Mn-d µg/L	Feb 2010 Mn-d ug/L	March 2010 Mn-d µg/L	April 2010 Mn-d µg/L	June 2010 Mn-d µg/L	July 2010 Mn-d µg/L	Sept 2010 Mn-d µg/L	Nov 2010 Mn-d µg/L	March 2011 Mn-d µg/L	June 2011 Mn-d µg/L	July 2011 Mn-d µg/L	Aug 2011 Mn-d μg/L	Sept 2011 Mn-d µg/L	Oct 2011 Mn-d µg/L
				148	40.5	73	125			73.6	45.1	55.9	120
31000	31100	29100	29100	24100	28500	33100	32900		26000	27200	29100	29900	30700
						36200	35000			30600	31400	30800	31500
44900	49500	50300	49700	44500	49900	51400	49100	47500	47700	47800	47600	47200	46500
	26500	27400	26200	27100	29600	31700	30700		28100	28900	30900	33600	32000
35000	35200	32900	32500	31700	32900	35700	34100	34400	31700	30400	30500		

May 2009 Flow cfs	June 2009 Flow cfs	July 2009 Flow cfs	Aug 2009 Flow cfs	Sept 2009 Flow cfs	Nov 2009 Flow cfs	Feb 2010 Flow cfs	March 2010 Flow cfs	April 2010 Flow cfs	June 2010 Flow cfs	July 2010 Flow cfs	Sept 2010 Flow cfs	Nov 2010 Flow cfs
		1.11	0.101	0.200					4.61	0.389	0.075	
0.259	0.108	0.178	0.109	0.109	0.123	0.154			0.138	0.095	0.109	0.102
0.318	0.309	0.231	0.212	0.221	0.278	0.178	0.204	0.204	0.24	0.24	0.268	0.24
0.423	0.498	0.436	0.358	0.562				0.333	0.558	0.485	0.449	0.473
0.749	0.699	0.664	0.676	0.749				0.403	0.488	0.517	0.541	0.46

						Formula= ug	/I * cfs * 0.005	39377493629	9927			
Viarch 2011 Flow cfs	June 2011 Flow cfs	July 2011 Flow cfs	Aug 2011 Flow cfs	Sept 2011 Flow cfs	Oct 2011 Flow cfs	May 2009 Mn Load Lbs/day	June 2009 Mn Load Lbs/day	July 2009 Mn Load Lbs/day	Aug 2009 Mn Load Lbs/day	Sept 2009 Mn Load Lbs/day	Nov 2009 Mn Load Lbs/day	Feb 2010 Mn Load Lbs/day
'		3.6	0.384	0.11	0.101	,		0.29	0.020	0.071		
	0.212	0.088	0.13	0.095	0.095	38.22	15.26	28.11	17.69	18.22	21.28	24.4
0.212	0.24	0.212	0.221	0.221	0.24	84.73	77.67	61.91	59.57	60.55	77.94	44.5
	0.328	0.298	0.308	0.318	0.313	68.9	77.1	75.7	66.4	105.9		
	0.724	0.676	0.7		······································	134.1 528.97	105.2 342.33	115.7 306.51	118.5 245.74	139.7 359.49	314.29	226.20



March 2010 Mn Load Lbs/day	April 2010 Mn Load Lbs/day	June 2010 Mn Load Lbs/day	July 2010 Mn Load Lbs/day	Sept 2010 Mn Load Lbs/day	Nov 2010 Mn Load Lbs/day	March 2011 Mn Load Lbs/day	June 2011 Mn Load Lbs/day	July 2011 Mn Load Lbs/day	Aug 2011 Mn Load Lbs/day	Sept 2011 Mn Load Lbs/day	Oct 2011 Mn Load Lbs/day
		3.9 18.9	0.1 15.0	0.0 18.4	0.0 17.5		29.5	1.5 13.1	0.1 20.4	0.0 15.4	0.1 15.5
		10.9	15.0	0.0	0.0		29.5	13.1	20.4	15.4	15.5
53.1	55.5	61.9	61.9	68.5	65.2	55.8	62.7	56.6	56.0	55.9	63.4
	48.0	88.8	77.2	71.0	79.1		47.8	47.4	52.5	59.0	56.6
	78.9	87.4	87.8	95.4	87.6		124.2	114.5	112.9		
259.75	314.35	390.10	199.45	247.95	253.23	196.94	428.61	344.00	263.91		



#### ANIMAS RIVER 2009 - 2010 DATA SUMMARY - Nickel

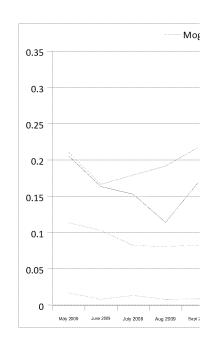
Location Name	Station ID	May 2009 Ni-t μg/L	June 2009 Ni-t µg/L	July 2009 Ni-t µg/L	Aug 2009 Ni-t µg/L	Sept 2009 Ni-t µg/L	Nov 2009 Ni-t µg/L	Feb 2010 Ni-t µg/L	March 2010 Ni-t µg/L	April 2010 Ni-t µg/L	June 2010 Ni-t µg/L	July 2010 Ni-t µg/L
Background	CC01F			<2	<2.0	<2.0					<4.0	<4.0
Mogul Mine Adit Red and Bonita Adit	CC02D CC03C	12	13.3	14	13.7	14.5	14.5	14.2	12.9	11.9	12.2	12.4
American Tunnel	CC19	66	61.7	66	70.4	69.1	69.7	67.7	60.8	66.4	63.5	66.4
7-Level Adit	CC06	90	60.8	65	59.1	55.5		38	37.1	35	95.1	57.6
Red and Bonita Culvert	CC03D CC18	52	44.1	50	52.5	53.8	57.1	56.9	59.1	56.5	55.1	52.3

Sept 2010 Ni-t µg/L	Nov 2010 Ni-t µg/L	March 2011 Ni-t µg/L	June 2011 Ni-t µg/L	July 2011 Ni-t µg/L	Aug 2011 Ni-t µg/L	Sept 2011 Ni-t µg/L	Oct 2011 Ni-t µg/L		May 2009 Ni-d ug/L	June 2009 Ni-d µg/L	July 2009 Ni-d µg/L	Aug 2009 Ni-d µg/L	Sept 2009 Ni-d µg/L
<0.7	<0.7			<4.0	<4.0	<4.0	<4.0	7			<2.00	<2.0	<2.0
12.8	13.7		11.2	12	12.2	13	12		11.8	11	13.2	13.5	15.1
54.1	56.4			51.5	51.5	51.4	52.2						
64.1	69.6	68	62.7	67.4	65.7	64.3	63.1		64.1	61.5	64.6	63.2	69
52.6	46.7		94.1	85.8	68.5	60	51.9		91.1	57.6	63.8	59.9	55.6
53.2	56.9	55.4	51.3	50.6	48.9				51.9	47.7	47.9	50.4	55.5

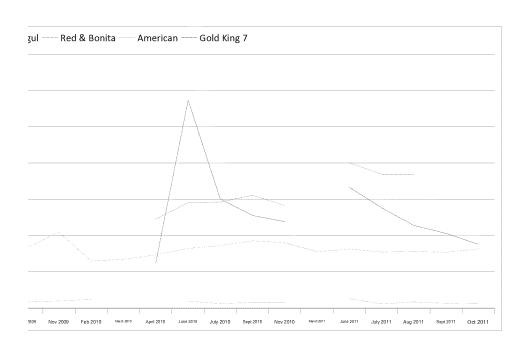
Nov 2009 Ni-d µg/L	Feb 2010 Ni-d ug/L	March 2010 Ni-d µg/L	April 2010 Ni-d µg/L	June 2010 Ni-d µg/L	July 2010 Ni-d µg/L	Sept 2010 Ni-d µg/L	Nov 2010 Ni-d µg/L	March 2011 Ni-d µg/L	June 2011 Ni-d µg/L	July 2011 Ni-d µg/L	Aug 2011 Ni-d µg/L	Sept 2011 Ni-d µg/L	Oct 2011 Ni-d µg/L
				<4.0	<4.0	<0.7	<0.7	•		<4.0	<4.0	<4.0	<4.0
14.2	14.7	13.3	12.4	8.8	10.2	14.1	13.1		10.8	12.6	12.6	12.5	12.3
						55.9	55.5			51.3	49.4	51.3	50.9
60	69.7	67.2	67.8	56.7	65.2	71.5	66.8	64.4	62.6	66.5	63.2	62.8	60.9
	36.4	38.1	37.4	94	53.7	55.2	47.7		93.2	86.2	68.2	59.6	49.9
57.3	59.4	55.9	54.7	52	49.5	56.6	57 1	56	50.9	49.2	49.5		

May 2009 Flow cfs	June 2009 Flow cfs	July 2009 Flow cfs	Aug 2009 Flow cfs	Sept 2009 Flow cfs	Nov 2009 Flow cfs	Feb 2010 Flow cfs	March 2010 Flow cfs	April 2010 Flow cfs	June 2010 Flow cfs	July 2010 Flow cfs	Sept 2010 Flow cfs	Nov 2010 Flow cfs
		1.11	0.101	0.200					4.61	0.389	0.075	,
0.259	0.108	0.178	0.109	0.109	0.123	0.154			0.138	0.095	0.109	0.102
0.318	0.309	0.231	0.212	0.221	0.278	0.178	0.204	0.204	0.24	0.24	0.268	0.24
0.423	0.498	0.436	0.358	0.562				0.333	0.558	0.485	0.449	0.473
0.749	0.699	0.664	0.676	0.749				0.403	0.488	0.517	0.541	0.46

					'	Formula= ug	/I * cfs * 0.005	39377493629	9927			•
March 2011 Flow cfs	June 2011 Flow cfs	July 2011 Flow cfs	Aug 2011 Flow cfs	Sept 2011 Flow cfs	Oct 2011 Flow cfs	May 2009 Ni Load Lbs/day	June 2009 Ni Load Lbs/day	July 2009 Ni Load Lbs/day	Aug 2009 Ni Load Lbs/day	Sept 2009 Ni Load Lbs/day	Nov 2009 Ni Load Lbs/day	Feb 2010 Ni Load Lbs/day
	0.040	3.6	0.384	0.11	0.101		0.04	0.04	0.04	0.04	0.04	
	0.212	0.088	0.13	0.095	0.095	0.02	0.01	0.01	0.01	0.01	0.01	0.0
0.212	0.24	0.212	0.221	0.221	0.24	0.11	0.10	0.08	0.08	0.08	0.10	0.1
	0.328	0.298	0.308	0.318	0.313	0.2	0.2	0.2	0.1	0.2		
	0.724	0.676	0.7			0.2	0.2	0.2	0.2	0.2		
						0.79	0.66	0.55	0.42	0.60	0.50	0.37



April 2010 Ni Load Lbs/day	June 2010 Ni Load Lbs/day	July 2010 Ni Load Lbs/day	Sept 2010 Ni Load Lbs/day	Nov 2010 Ni Load Lbs/day	March 2011 Ni Load Lbs/day	June 2011 Ni Load Lbs/day	July 2011 Ni Load Lbs/day	Aug 2011 Ni Load Lbs/day	Sept 2011 Ni Load Lbs/day	Oct 2011 Ni Load Lbs/day
	0.0	0.01	0.01 0.00	0.01 0.00		0.0	0.0	0.009	0.007	0.006
0.1	0.1	0.09	0.09	0.09	0.1	0.1	0.1	0.1	0.1	0.1 0.1
0.1	0.1	0.15	0.16	0.14		0.2	0.2	0.2		0.1
	Ni Load Lbs/day	Ni Load Lbs/day  0.0  0.1 0.1 0.1 0.3 0.1 0.1	Ni Load Lbs/day Ni Load Lbs/day  0.0 0.01  0.1 0.1 0.09 0.1 0.3 0.2 0.1 0.1 0.15	Ni Load Lbs/day Ni Load Lbs/day Ni Load Lbs/day Lbs/day    0.0 0.01 0.01 0.00 0.00 0.01 0.00 0.00	Ni Load Lbs/day         Ni Load Lbs/day         Ni Load Lbs/day         Ni Load Lbs/day         Ni Load Lbs/day           0.0         0.01         0.01         0.01           0.00         0.00         0.00           0.1         0.1         0.09         0.09           0.1         0.3         0.2         0.1         0.1           0.1         0.1         0.15         0.16         0.14	Ni Load Lbs/day	Ni Load Lbs/day           0.0         0.01         0.01         0.01         0.0           0.1         0.1         0.09         0.09         0.09         0.1         0.1           0.1         0.3         0.2         0.1         0.1         0.2           0.1         0.1         0.15         0.16         0.14         0.2	Ni Load Lbs/day           0.0         0.01         0.01         0.01         0.0         0.0           0.1         0.1         0.09         0.09         0.09         0.1         0.1         0.1           0.1         0.3         0.2         0.1         0.1         0.2         0.1           0.1         0.1         0.15         0.16         0.14         0.2         0.2	Ni Load Lbs/day         Ni Load Lb	Ni Load Lbs/day         Ni Load Lb



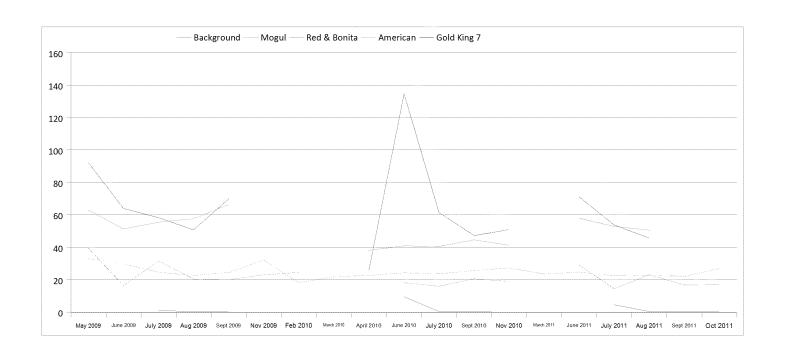
Location Name	Station ID	May 2009 Zn-t μg/L	June 2009 Zn-t µg/L	July 2009 Zn-t µg/L	Aug 2009 Zn-t μg/L	Sept 2009 Zn-t µg/L	Nov 2009 Zn-t μg/L	Feb 2010 Zn-t μg/L	March 2010 Zn-t μg/L	April 2010 Zn-t µg/L	June 2010 Zn-t μg/L	July 2010 Zn-t µg/L	Sept 2010 Zn-t µg/L
Background	CC01F			193	185	279					379	180	262
Mogul Mine Adit Red and Bonita Adit	CC02D CC03C	28200	28000	32900	34800	34200	34700	29400	29200	27800	24500	31300	34900 16600
American Tunnel	CC19	19200	17900	19900	19600	20500	21400	19000	19700	20600	18700	18300	17800
7-Level Adit	CC06	40300	23800	24800	26300	23000		15200	16000	14500	44700	23500	19500
Red and Bonita Culvert	CC03D CC18	15600	13600	15500	15800	16400	17400	16000	16500	17500	15500	14500	15300

Nov 2010 Zn-t μg/L	March 2011 Zn-t μg/L	June 2011 Zn-t µg/L	July 2011 Zn-t µg/L	Aug 2011 Zn-t μg/L	Sept 2011 Zn-t µg/L	Oct 2011 Zn-t µg/L	May 2009 Zn-d ug/L	June 2009 Zn-d µg/L	July 2009 Zn-d µg/L	Aug 2009 Zn-d μg/L	Sept 2009 Zn-d µg/L	Nov 2009 Zn-d μg/L	Feb 2010 Zn-d ug/L	March 2010 Zn-d μg/L
661			238	179	188	505			175	179	259			
34500		25300	30500	33000	32600	33200	26400	25100	31600	33600	34700	32200	31200	28500
15200			14800	13400	14600	16100								
21000	20500	19100	19700	19000	18500	20800	19500	17800	20000	19500	20100	17400	19900	20600
20000		40200	33400	27500	24600	24400	40200	21900	24000	24800	22400		15500	15600
16600	15500	14800	14500	13400			14300	13600	15000	15000	16100	16400	16900	15500

April 2010 Zn-d µg/L	June 2010 Zn-d µg/L	July 2010 Zn-d µg/L	Sept 2010 Zn-d µg/L	Nov 2010 Zn-d μg/L	March 2011 Zn-d μg/L	June 2011 Zn-d µg/L	July 2011 Zn-d µg/L	Aug 2011 Zn-d μg/L	Sept 2011 Zn-d µg/L	Oct 2011 Zn-d μg/L	May 2009 Flow cfs	June 2009 Flow cfs	July 2009 Flow cfs	Aug 2009 Flow cfs
	370	179	276	604			233	177	196	492	·		1.11	0.101
25800	22900	29800	36700	37800		25600	29800	32800	32900	33700	0.259	0.108	0.178	0.109
			16300	16800			14700	14200	14000	14600				
18400	17600	19700	20400	21400	18500	18900	19900	19500	18200	19300	0.318	0.309	0.231	0.212
13000	39300	22500	21700	20700		41900		28600	23900	21100	0.423	0.498	0.436	0.358
14200	14900	14800	16500	17200	15500	14600	13600	14200			0.749	0.699	0.664	0.676

Sept 2009 Flow cfs	Nov 2009 Flow cfs	Feb 2010 Flow cfs	March 2010 Flow cfs	April 2010 Flow cfs	June 2010 Flow cfs	July 2010 Flow cfs	Sept 2010 Flow cfs	Nov 2010 Flow cfs	March 2011 Flow cfs	June 2011 Flow cfs	July 2011 Flow cfs	Aug 2011 Flow cfs	Sept 2011 Flow cfs	Oct 2011 Flow cfs
0.200					4.61	0.389	0.075				3.6	0.384	0.11	0.101
0.109	0.123	0.154			0.138	0.095	0.109	0.102		0.212	0.088	0.13	0.095	0.095
0.221	0.278	0.178	0.204	0.204	0.24	0.24	0.268	0.24	0.212	0.24	0.212	0.221	0.221	0.24
0.562				0.333	0.558	0.485	0.449	0.473		0.328	0.298	0.308	0.318	0.313
0.749				0.403	0.488	0.517	0.541	0.46		0.724	0.676	0.7		

Formula= ug	/I * cfs * 0.005	3937749362	9927			<del></del>				·					
May 2009 Zn Load Lbs/day	June 2009 Zn Load Lbs/day	July 2009 Zn Load Lbs/day	Aug 2009 Zn Load Lbs/day	Sept 2009 Zn Load Lbs/day	Nov 2009 Zn Load Lbs/day	Feb 2010 Zn Load Lbs/day	March 2010 Zn Load Lbs/day	April 2010 Zn Load Lbs/day	June 2010 Zn Load Lbs/day	July 2010 Zn Load Lbs/day	Sept 2010 Zn Load Lbs/day	Nov 2010 Zn Load Lbs/day	March 2011 Zn Load Lbs/day	June 2011 Zn Load Lbs/day	July 2011 Zn Load Lbs/day
39.33	16.31	1.15 31.57	0.100 20.38	0.301 20.03	23.00	24.4			9.4 18.2	0.4 16.0	0.1 20.5 0.0	0.0 19.0 0.0		28.9	4.6 14.5 0.0
32.93 91.9 63.0	29.83 63.9 51.3	24.74 58.3 55.5	22.45 50.7 57.6	24.48 69.8 66.2	32.08	18.2	21.7	22.7 26.0 38.0	24.2 134.5 40.8	23.7 61.5 40.4	25.7 47.2 44.6	27.2 51.0 41.2	23.4	24.7 71.1 57.8	22.5 53.7 52.9
450.02		179.87	151.89	213.32	178.77	117.43	133.10	176.64	317.15	114.05		135.75	5 99.35		



Aug 2011 Zn Load Lbs/day	Sept 2011 Zn Load Lbs/day	Oct 2011 Zn Load Lbs/day
0.4	0.1	0.3
23.1 0.0	16.7	17.0
22.6	22.1	26.9
45.7		
50.6		
158 72		

## ANIMAS RIVER 2009 - 2011 DATA SUMMARY

Location Name	Station ID	May 2009 As-t μg/L	June 2009 As-t µg/L	July 2009 As-t µg/L	Aug 2009 As-t μg/L
Background Mogul Mine Adit Red and Bonita Adit	CC01F CC02D CC03C	<4.0	<4.0	<4.0 <4.0	<4.0 <4.0
American Tunnel 7-Level Adit Red and Bonita Culvert	CC19 CC-06 CC03D	<4.0 116 <4.0	<4.0 19.8 <4.0	<4.0 11.3 <4.0	<4.0 5.8 <4.0

Sept 2009 As-t µg/L	Nov 2009 As-t µg/L	Feb 2010 As-t µg/L	March 2010 As-t μg/L	April 2010 As-t µg/L	June 2010 As-t µg/L	July 2010 As-t µg/L	Sept 2010 As-t µg/L
<4.0					<4.0	<4.0	<1.0
<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0
							<1.0
<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0
<4.0		<4.0	<4.0	<4.0	144	10.8	<1.0
<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<1.0

Nov 2010 As-t µg/L	March 2011 As-t μg/L	June 2011 As-t µg/L	July 2011 As-t µg/L	Aug 2011 As-t μg/L	Sept 2011 As-t µg/L	Oct 2011 As-t μg/L
<1.0			<4.0	<4.0		
<1.0		<4.0	<4.0	<4.0		
			<4.0	<4.0		
<1.0			1.0	1		
<1.0 <1.0	<4.0		ļ	<4.0		
	<4.0		<4.0			

May 2009 As-d ug/L	June 2009 As-d µg/L	July 2009 As-d µg/L	Aug 2009 As-d μg/L	Sept 2009 As-d µg/L	Nov 2009 As-d µg/L	Feb 2010 As-d ug/L	March 2010 As-d μg/L
		<4.0	<4.0	<4.0			
<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
111	21.3	5.5	<4.0	<4.0		<4.0	<4.0
<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0

April 2010 As-d µg/L	June 2010 As-d µg/L	July 2010 As-d µg/L	Sept 2010 As-d µg/L	Nov 2010 As-d μg/L	March 2011 As-d µg/L	June 2011 As-d µg/L	July 2011 As-d µg/L
	<4.0	<4.0	<1.0	<1.0			<4.0
<4.0	<4.0	<4.0	<1.0	<1.0		<4.0	<4.0
			<1.0	<1.0			<4.0
<4.0	<4.0	<4.0	<1.0	<1.0	<4.0	<4.0	<4.0
<4.0	139	5.6	<1.0	<1.0		160	44.
<4.0	<4.0	<4.0	<1.0	<1.0	<4.0	<4.0	<4.0

Aug 2011 As-d µg/L	Sept 2011 As-d µg/L	Oct 2011 As-d µg/L	May 2009 Be-t µg/L	June 2009 Be-t µg/L	July 2009 Be-t µg/L	Aug 2009 Be-t µg/L
<4.0		-	<u> </u>		<1	<1.0
<4.0			4	4.4	5	4.7
<4.0						
<4.0			4	3.6	4	3.7
8.4			8	7	8	9.4
<4.0			7	5.8	6	6.6

Sept 2009 Be-t µg/L	Nov 2009 Be-t μg/L	Feb 2010 Be-t µg/L	March 2010 Be-t μg/L	April 2010 Be-t µg/L	June 2010 Be-t µg/L	July 2010 Be-t µg/L	Sept 2010 Be-t µg/L
<1.0					<1.0	<1.0	<0.2
4.7	4.5	4.2	4	3.6	3.6	4.3	4.5 7.4
3.9	3.9	3.8	3.5	3.7	3.7	3.7	3.3
8.6		4.1	4.1	3.6	8.8	6.8	8.1
7.0	7.4	7.4	7.6	7.4	7.1	7	7.1

Nov 2010 Be-t μg/L	March 2011 Be-t µg/L	June 2011 Be-t µg/L	July 2011 Be-t µg/L	Aug 2011 Be-t µg/L	Sept 2011 Be-t µg/L	Oct 2011 Be-t µg/L	
<0.2			<1.0	<1.0			
4.3		3.5	4.3	4.4			
7.5			6.6	7.1			
3.6	3.4	3.8	3.8	3.6			
6.4		8	7.7	9.3			
7.3	7	6.8	6.5	6.3			

May 2009 Be-d ug/L	June 2009 Be-d µg/L	July 2009 Be-d µg/L	Aug 2009 Be-d μg/L	Sept 2009 Be-d µg/L	Nov 2009 Be-d μg/L	Feb 2010 Be-d ug/L	March 2010 Be-d μg/L
3.74	4	<1.00 4.71	<1.0 4.6	<1.0 4.7	4.4	4.2	3.9
3.45 7.97 5.93	3.6 6.8 5.3	3.58 8.18 5.45	3.6 9.1 5.8	3.8 8.5 6.2	3.4 6.9	3.9 3.8 7.2	3.6 3.9 6.4

April 2010 Be-d µg/L	June 2010 Be-d µg/L	July 2010 Be-d µg/L	Sept 2010 Be-d µg/L	Nov 2010 Be-d μg/L	March 2011 Be-d µg/L	June 2011 Be-d µg/L	July 2011 Be-d µg/L
	<1.0	<1.0	<0.2	<0.2			<1.0
3.8	3.5	4.2	4.7	4.3		3.6	4.4
			7.6	7.7			6.6
3.8	3.3	3.7	3.9	3.7	3.8	3.6	3.8
3.7	8.5	6.8	8.1	6.7		8.1	7.7
6.3	6.2	6.1	6.9	5.9	6.4	5.9	5.4

Aug 2011 Be-d µg/L	Sept 2011 Be-d µg/L	Oct 2011 Be-d µg/L	May 2009 Cr-t µg/L	June 2009 Cr-t µg/L	July 2009 Cr-t µg/L	Aug 2009 Cr-t µg/L
<1.0			-		<2	<2.0
4.6			<2	<2.0	<2	<2.0
6.9						
3.9			<2	<2.0	<2	<2.0
9.9			14	5.5	4.0	2.4
5.8			<2	<2.0	<2	<2.0

Sept 2009 Cr-t µg/L	Nov 2009 Cr-t μg/L	Feb 2010 Cr-t µg/L	March 2010 Cr-t μg/L	April 2010 Cr-t µg/L	June 2010 Cr-t µg/L	July 2010 Cr-t µg/L	Sept 2010 Cr-t µg/L
<2.0					<5.0	<5.0	<0.5
<2.0	<2.0	3.6	2.8	3.2	<5.0	<5.0	<0.5 <0.5
<2.0	<2.0	4.8	3.3	3.2	<5.0	<5.0	<0.5
<2.0		2.8	2.5	<2.0	13.8	<5.0	<0.5
<2.0	<2.0	3.2	3.5	2.5	<5.0	<5.0	<0.5

Nov 2010 Cr-t μg/L	March 2011 Cr-t μg/L	June 2011 Cr-t µg/L	July 2011 Cr-t μg/L	Aug 2011 Cr-t μg/L	Sept 2011 Cr-t µg/L	Oct 2011 Cr-t µg/L
<0.5			<5.0	<5.0		
	1					
<0.5		<5.0	<5.0	<5.0		
		<5.0		<5.0 <5.0		
<0.5		<5.0 <5.0	<5.0	ļ		
<0.5 <0.5			<5.0 <5.0	<5.0		

May 2009 Cr-d ug/L	June 2009 Cr-d µg/L	July 2009 Cr-d µg/L	Aug 2009 Cr-d μg/L	Sept 2009 Cr-d µg/L	Nov 2009 Cr-d μg/L	Feb 2010 Cr-d ug/L	March 2010 Cr-d μg/L
<2.00	<2.0	<2.00 <2.00	<2.0 <2.0	<2.0 <2.0	<2.0	<2.0	3
<2.00 14.1 <2.00	<2.0 4.4 <2.0	<2.00 4.04 <2.00	<2.0 2.1 <2.0	<2.0 <2.0 <2.0	<2.0 <2.0	2.2 2.9 <2.0	3.8 3 3.3

April 2010 Cr-d µg/L	June 2010 Cr-d μg/L	July 2010 Cr-d µg/L	Sept 2010 Cr-d µg/L	Nov 2010 Cr-d μg/L	March 2011 Cr-d µg/L	June 2011 Cr-d µg/L	July 2011 Cr-d µg/L
	<5.0	<5.0	<0.5	<0.5			<5.0
<2.0	<5.0	<5.0	<0.5	<0.5		<5.0	<5.0
			<0.5	<0.5			<5.0
		-5.0	<0.5	< 0.5	<5.0	<5.0	<5.0
<2.0	<5.0	<5.0	<b>~</b> 0.5	₹0.5	,		
<2.0 <2.0	<5.0 16.5	<5.0 <5.0	<0.5	<0.5		12.6	8.3

Aug 2011 Cr-d µg/L	Sept 2011 Cr-d µg/L	Oct 2011 Cr-d µg/L	May 2009 Se-t μg/L	June 2009 Se-t µg/L	July 2009 Se-t µg/L	Aug 2009 Se-t μg/L
<5.0				•	<1.0	<1.0
<5.0			2.0	1.7	2.1	2.2
<5.0						
<5.0			2.2	1.9	2.0	1.8
<5.0			8.3	4.2	4.6	3.9
<5.0			1.7	1.3	1.4	1.5

Sept 2009 Se-t µg/L	Nov 2009 Se-t μg/L	Feb 2010 Se-t µg/L	March 2010 Se-t μg/L	April 2010 Se-t µg/L	June 2010 Se-t µg/L	July 2010 Se-t µg/L	Sept 2010 Se-t µg/L
<1.0					<1.0	<1.0	<0.2
2.0	1.3	1.9	1.7	1.6	1.6	1.7	1.7 1.2
2.0	1.7	2	1.8	1.8	2.2	2	1.9
3.2		1.8	2.1	2	8.8	4.2	2.8
1.3	1.1	1.7	1.8	1.1	1.8	1.7	1.4

Nov 2010 Se-t µg/L	March 2011 Se-t µg/L	June 2011 Se-t µg/L	July 2011 Se-t µg/L	Aug 2011 Se-t µg/L	Sept 2011 Se-t µg/L	Oct 2011 Se-t µg/L
<0.2			<1.0	<1.0		
1.6		2	1.9	2.3		
1.4			1.5	1.6		
2	2.1	2.5	2.2	2.4		
2.7		10.4	7.7	5.9		
1.3	1.6	1.8	1.5	1.7		

May 2009 Se-d ug/L	June 2009 Se-d µg/L	July 2009 Se-d µg/L	Aug 2009 Se-d μg/L	Sept 2009 Se-d µg/L	Nov 2009 Se-d μg/L	Feb 2010 Se-d ug/L	March 2010 Se-d μg/L
1.7	1.4	<1.0 1.6	<1.0 2.3	<1.0 2	1.8	1.7	1.7
2.2 8.1 1.5	1.9 3.6 1.3	1.8 3.4 1.1	2.5 4.3 1.3	1.6 2.9 1.5	2.5 1.6	2.2 1.9 1.6	1.9 2 1.5

April 2010 Se-d μg/L	June 2010 Se-d µg/L	July 2010 Se-d µg/L	Sept 2010 Se-d µg/L	Nov 2010 Se-d μg/L	March 2011 Se-d μg/L	June 2011 Se-d µg/L	July 2011 Se-d µg/L
	<1.0	<1.0	<0.2	<0.2			<1.0
1.2	1.4	1.8	1.5	2.5		2.1	1.7
			1.2	1.7			1.7
1.7	2.3	2.1	1.6	2.2	1.9	2.3	2.2
1.7	8.2	3.9	2.6	3		10	6.8
1.2	1.6	1.8	1.2	1.7	1.4	1.8	1.4

Aug 2011 Se-d µg/L	Sept 2011 Se-d µg/L	Oct 2011 Se-d µg/L	May 2009 Ag-t µg/L	June 2009 Ag-t µg/L	July 2009 Ag-t µg/L	Aug 2009 Ag-t µg/L
<1.0			-		<0.5	<0.5
2.2			<0.5	<0.5	<0.5	<0.5
1.5						
2.1			<0.5	<0.5	<0.5	<0.5
5.5			<1.0	<0.5	<0.5	<0.5
1.4			<0.5	<0.5	<0.5	<0.5

Sept 2009 Ag-t µg/L	Nov 2009 Ag-t μg/L	Feb 2010 Ag-t µg/L	March 2010 Ag-t µg/L	April 2010 Ag-t µg/L	June 2010 Ag-t µg/L	July 2010 Ag-t µg/L	Sept 2010 Ag-t µg/L
<0.5					<0.5	<0.5	<0.1
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1 <0.1
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
<0.5		<0.5	<0.5	<0.5	<1.0	<0.5	<0.1
<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.1

Nov 2010 Ag-t μg/L	March 2011 Ag-t µg/L	June 2011 Ag-t µg/L	July 2011 Ag-t µg/L	Aug 2011 Ag-t μg/L	Sept 2011 Ag-t µg/L	Oct 2011 Ag-t µg/L	
<0.1			<0.5	<0.5			
<0.1		<0.5	<0.5	<0.5			
<0.1			<0.5	<0.5			
<0.1	<0.5	<0.5	<0.5	<0.5			
<0.1		<2.0	<0.5	<0.5			
<0.1	<0.5	<0.5	<0.5	<0.5			

May 2009 Ag-d ug/L	June 2009 Ag-d µg/L	July 2009 Ag-d µg/L	Aug 2009 Ag-d µg/L	Sept 2009 Ag-d µg/L	Nov 2009 Ag-d µg/L	Feb 2010 Ag-d ug/L	March 2010 Ag-d μg/L
<0.5	<0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5	<0.5	<0.5
<0.5 <1.0 <0.5	<0.5 <1.0 <0.5	<0.5 <0.5 <0.5	<0.5 <0.5 <0.5	<0.5 <0.5 <0.5	<0.5 <0.5	<0.5 <0.5 <0.5	<0.5 <0.5 <0.5

April 2010 Ag-d µg/L	June 2010 Ag-d µg/L	July 2010 Ag-d µg/L	Sept 2010 Ag-d µg/L	Nov 2010 Ag-d µg/L	March 2011 Ag-d µg/L	June 2011 Ag-d µg/L	July 2011 Ag-d µg/L
	<0.5	<0.5	<0.1	<0.1			<0.5
<0.5	<0.5	<0.5	<0.1	<0.1		<0.5	<0.5
			<0.1	<0.1			<0.5
<0.5	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.5
<0.5	<1.0	<0.5	<0.1	<0.1		<2.0	<0.5
<0.5	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.5

Aug 2011 Ag-d µg/L	Sept 2011 Ag-d µg/L	Oct 2011 Ag-d µg/L
<0.5	Processing	
<0.5		
<0.5		
<0.5		
<0.5		
<0.5		